

Student Name:

id:

Sect:

Serial#:

University of Bahrain
College of Information Technology
Department of Computer Science

ITCS241: Assembly Language Programming Debug Commands Quiz #4

For questions from 13 to 17, CIRCLE the BEST CORRECT answer.

- 13) The debug command that allows you to store the value FFH in the byte 1880H is
 a) d 1880 FF b) e 1880h FFh c) d 1880h FFH ☒ d) e 1880 FF e) None
- 14) The debug command that allows you to reload the same program and restart its execution (debugging) is:
 a) T b) G ☒ c) L d) N e) None
- 15) The debug command that allows you to display the contents of the first 40 bytes of the code segment is
 a) d SS:0 27 b) e ES:0 40 c) d SS:0 28 d) d SS:0 40 ☒ e) None
- 16) The debug command that allows you to display the object and source codes stored at memory locations between addresses 100H and 240H is _____
 a) G 0 240 b) E 100 240 ☒ c) U 100 240 d) U 100h 240h e) None
- 17) The debug command used to display the contents of next 16 bytes starting at address 2000H is _____
 a) d 2000 2016 b) G =16 ☒ c) d 2000 200F d) d 2000 2010 e) None

- Carefully study the given below debug snapshot and answer questions (18 and 24):

```

1380:0100 B90800      MOV     CX,0008
1380:0103 BF0002      MOV     DI,0200
1380:0106 BB5001      MOV     BX,0150
1380:0109 8B07        MOV     AX,[BX]
1380:010B 8905        NEXT:  MOV     [DI],AX
1380:010D 83C302      ADD     BX,+02
1380:0110 47          INC     DI
1380:0111 47          INC     DI
1380:0112 E2F5        LOOP    NEXT
1380:0114 B44C        MOV     AH,4C
1380:0116 CD21        INT     21
  
```

```

AX=0000  BX=0000  CX=0017  DX=0000  SP=FFEE  BP=0000  SI=0000  DI=0000
DS=1380  ES=1380  SS=1380  CS=1380  IP=0110  NV UP EI PL NZ NA PO NC
1380:0110 47          INC     DI
  
```

16 8 4 2 1
 0 1 1 1 1
 5

- 18) The object code of the ADD instruction is 83C302
- 19) The physical address of the location containing the first byte of ADD instruction is 1380:010D
- 20) The next instruction to be executed is INC DI
- 21) The offset address of the location containing the first byte of LOOP instruction is 0112 H.
- 22) The length of the ADD instruction is 3 bytes.
- 23) The total length of the above code is 24 bytes.
- 24) The debug command used to execute instructions from MOV BX, 150 and stop at MOV AH, 4C is

G=0105 / 0114

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Quiz #4: IO using Irvine Procedures

Write a sequence of statements to:

- Randomly generate 100 signed values in the range from -128 to +127.
- Store the sum of all generated values in a variable named SUM.

arr sword 10 dup (?)
sum sword 0

call Randomize
mov ecx, 255
mov ecx, lengthof arr
mov esi, offset arr
LO: call RandomRange
sub ecx, 128
mov [esi], ecx
add sum, [esi]
add esi, 4
loop LO